



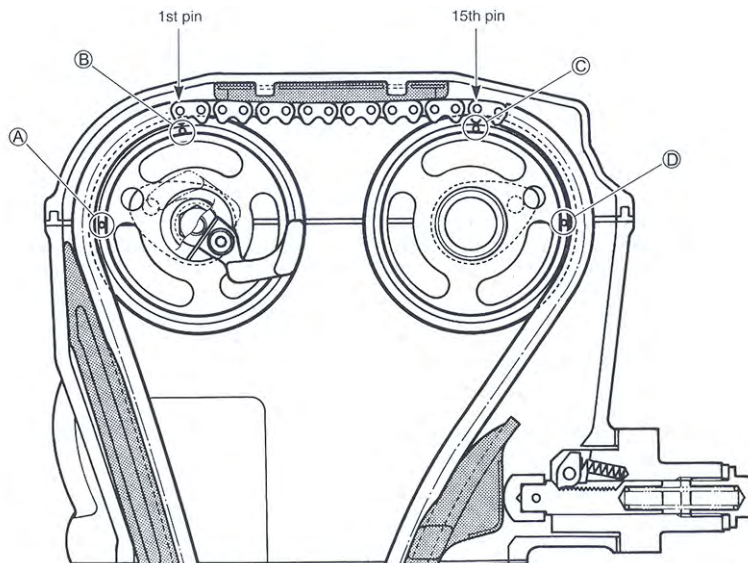
DRI SUZUKI LT R450/475 NATIONAL KIT ASSEMBLY TIPS

2006 Model

SPECIAL NOTE: DRI does not recommend working on the engine of your Suzuki LTZ 400 without the assistance of the Genuine OEM Suzuki Service Manual.

ASSEMBLY

It is **MANDATORY** that the cylinder head and cam tower bolts are torqued properly. Consult the OEM Suzuki Service Manual for specific instruction and torque settings. Head bolts must be torqued exactly as per specified in OEM service manual.



CAM TIMING

Start with Piston at TDC, Set like manual, see picture.

BREAK-IN: Read and follow instructions for DRI TECH Sheet *4-Stroke Engine Break In*.

*NOTE: Engine will run better after it has 3-5 hours on it.

VALVE SETTINGS: Valves should be checked initially every 3-4 hours for first 12-hour period after initial set-up and every 10 hours after that. Consult your camshaft specification card for correct clearances. Stock clearances no longer apply after camshaft has been upgraded to a DRI camshaft.

DRI CAM SETTINGS (Clearances must be set and checked with engine cold)

Cam Profile Number	Intake	Exhaust
332 X12	.006" - .008"	.007" - .009"
332 X34	.006" - .008"	.007" - .009"

*NOTE: Valve life is decreased when engine is modified via; high lift cams, high performance valve seats. Valve life is also greatly affected by engine over-revving and /or engine use at Hi RPM's, Abrasives (dirt, sand, mud) being ingested into engine will harm and prematurely wear out the valves.



PISTON RINGS: Piston ring installation is a very delicate procedure and should be performed by a trained professional. All rings **MUST** have gap checked.

*DRI recommends consulting their 4-STROKE PISTON RING ASSEMBLY TIPS install sheet before attempting to install your rings.

475cc KIT: The 475cc kit requires a special oversized head gasket.

COMPRESSION RELEASE: DRI uses the stock OEM compression release system built into the exhaust camshaft. Starting modified engines should be equivalent to starting stock machine.

SPARK PLUG: NGK CR7EB is Standard. For Extended high-speed usage, use a CR9EB. Gap: 0.028" – 0.031".

AIR INTAKE: DRI recommends using a Pro Flow Air Cleaner kit, with K&N Filter. For best performance it is recommended to use stock air box with lid removed.

EXHAUST: For maximum performance use Fat Boy 4 Complete Stainless Exhaust System. Turndown and or spark arrester are optional

FUEL: Use VP C-12 Fuel. Motor Octane 108

OIL: Maxima Premium 4 10W40

*Consult Suzuki OEM Service Manual for oil capacity specifications.

OIL BREATHER: It is NOT recommended to remove the breather catch tank. Make sure that ALL of the engines breather hose lines are free of kinks or any other types of obstructions.

CARBURETION: This machine is NOT carburetated. This machine is equipped with fuel injection. Read EFI information regarding tuning/adjusting air fuel mixture

ELECTRONIC FUEL INJECTION: To adjust the air fuel mixture on this machine (which is required with ALL performance engine modifications) a VORTEX Interceptor is required. The Interceptor is a plug in module that taps into the fuel injector drive circuit from the standard ECU(Engine Control Unit) whilst monitoring the Throttle Position Sensor (TPS) then remaps the injector pulses thus the fuel flow to better match the increased air flow created by the addition of the modified engine components being installed. This is done over all throttle positions and RPM. The pre-programmed fuel map is developed by Vortex Performance/ DRI and is intended to work you're your hi performance engine combinations. In addition we have included three rotary switches which represent 0-33%, 34-66% and 67-100% Throttle Openings. Each switch allows the user to richen or lean the pre programmed Vortex Fuel Map by up to +/- 8% in 2% increments per click. The microprocessor controlled Interceptor re calculates the fuel maps and controls the fuel injector in accordance with the Vortex Fuel Map as well as the position of the switches. The switches act in a similar way to previously understood carburetor jets of, Pilot, Needle and Main. This is done by



dividing the fuel adjustment controlled by the switches into three bands of throttle position 0 - 1/3, 1/3 - 2/3 and 2/3 - Full.

TOP END SERVICE

For maximum performance, top end should be serviced at least every 20 hours.

For standard usage, top end should be serviced at least every 50 hours.

A top end service includes checking valves, valve sealing, piston clearance, cam chain and tensioner, lower rod bearing, etc.

Piston clearance should be kept between .0015" -.0025" not recommended to exceed .004"

Ring end gap should be kept .015" - .020" not to exceed .020"

Consult DRI or a qualified technician for additional assistance.

CRANKSHAFT: For Standard usage stock rod should be sufficient. Under serious performance conditions an upgraded connecting rod may be required. Contact DRI for additional details.

GEARING: OEM Gearing 14/36, Dune Riding 14/36, MX Racing 15/36-38 (18" tires)

IGNITION: Currently DRI recommends the use of the stock CDI/ECU unit. DRI does recommend that a Vortex Map Key be installed so the ECU will switch machine over to the #2 map built into the ECU at the factory. Map # 2 has a higher Rev Limit than comes stock. It is also recommended that you install a Vortex EFI Interceptor, to adjust the air/fuel mixture.

CLUTCH: The clutch must be kept in excellent condition for maximum performance to be delivered. Call DR Tech department with any questions regarding clutch performance or upgrades.

NOTES

1. Valve clearance and Deck height must be checked. Valve to Piston clearance should be minimum .040", Piston to Head clearance should be .060".
2. Must use special modified DRI steel head gasket

DRI is not responsible for any engine component (gears, rod, etc.) fatigue or failure due to increased horsepower and torque.

